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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Peter Grawenhof

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,230	Applicant(s) GRAWENHOF, PETER	
	Examiner Greg Binda	Art Unit 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Drawings

1. The drawings are objected to because:
 - a. Reference numerals 17 & 18 appear at page 7, lines 24 & 31; page 8, line 18; page 9, line 4 and claim 1, but do not appear in the drawings.
 - b. Reference numerals 19 & 20 appear at page 7, lines 33 & 34; page 9, line 1 and page 10, line 6, but do not appear in the drawings.
 - c. Reference numeral 27.1 appears at page 8, line 12, but does not appear in the drawings.
 - d. Reference numeral 28.1 appears at page 8, line 14, but does not appear in the drawings.
 - e. Reference numeral F₁ appears at page 8, line 26 and page 9, lines 11 & 14, but does not appear in the drawings.
 - f. Reference numeral 3412 appears at page 8, line 26, but does not appear in the drawings.
 - g. Reference numerals 39.1 & 39.2 appear at page 9, line 25, but do not appear in the drawings.
 - h. Reference numerals 40.1 & 40.2 appear at page 9, line 26, but do not appear in the drawings.
 - i. Reference numeral 22 is used to identify a front side at page 8, line 7 and reused to identify complementary teeth at page 10, line 9.
 - j. The drawings fail to show all of the limitations of claims 1.7, 1.9, 3, 4, 7, 10-13 & 17-20.

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2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to as failing to comply with 37 CFR 1.77(c) for failing to include section headings.

4. The disclosure is objected to because:

- a. Paragraphs 0001 & 0006 make reference to a specific claim.

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- b. Page 7, line 7 includes inappropriate commentary, “sic”. If applicant is aware of a problem with the way the specification is written, then it must be corrected.
- 5. The detailed description of the invention is objected to as failing to provide proper antecedent basis for the subject matter of claims 2, 3 & 9.
- 6. The abstract of the disclosure is objected to because it begins with a phrase that can be implied. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

- 7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 8. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
 - a. Claim 1, lines 11 & 12 recites “driver element (26.1, 26.2) on the attachment element’. However, the driver elements are disclosed as being formed on the yokes, not the attachment elements. See paragraph 0014.

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b. Claim 1, lines 23-28 (formerly identified as “1.7”) and claim 4, 12 & 13 recite that the first teeth are formed as spiral teeth. However, in the disclosed invention, the first teeth are straight (see Fig. 3). There is no explanation of how any other kind of teeth, much less spiral teeth, could be used in place of the disclosed straight teeth.

c. Claim 1, lines 31-37 (formerly identified as “1.9”) and claims 8 & 18-20 recite that the second teeth are formed as spiral teeth. However, in the disclosed invention, the second teeth are straight (see Fig. 3). There is no explanation of how any other kind of teeth, much less spiral teeth, could be used in place of the disclosed straight teeth.

d. Claim 10 recites that the second teeth are formed as various and disparate sets of partial teeth. However in the disclosed invention the second teeth are not broken up into sets and there is no explanation or suggestion as to why one would want to make them in the way recited in claim 10.

e. The limitations of claim 11 are undecipherable. There is nothing in the disclosed invention that equates to a “Rota”.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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- a. Regarding claim 1, lines 1 & 2, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- b. Claim 1 recites the limitation "the journals" in line 7. There is insufficient antecedent basis for this limitation in the claim.
- c. Claim 1 recites the limitation "each individual face part" in line 8. There is insufficient antecedent basis for this limitation in the claim.
- d. Claim 1 recites the limitation "the front side" in line 8. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 1, line 27 recites the limitation, "a joint yoke part". It is unclear if this part is included in, or exclusive of, the previously recited joint yoke parts.
- f. Claim 1, line 45 recites the limitation, "a joint yoke". It is unclear if this yoke is included in, or exclusive of, the previously recited joint yokes.
- g. Claims 5 & 14-16 recite the limitations, "means . . .for coupling" and "complementary means". It is unclear if these means are the same as, or different from the means recited in claim 1, lines 9-12.
- h. Claims 6, 7 & 17, line 2 recites the limitation, "the means". It is unclear which of the previously recited means is 'the means'.
- i. Claim 6, lines 2 & 3 recites the nonsensical limitation, "at least one axially oriented front teeth'.

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- j. Claims 8 & 10 recite the limitation, “the second teeth (31.1, 31.2, 32.1, 32.2)” it is unclear if these teeth are the same as, or different from the second teeth recited at claim 1, line 29.
- k. The limitations of claim 11 are undecipherable. There is nothing in the disclosed invention that equates to a “Rota”.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindenthal et al, US 6,540,617 (Lindenthal) in view of Wintercorn, US 1,700,991 and Miller, US 279,415.

Claims 1, 2, 4-12, 14, 16-18 & 20. Lindenthal discloses a universal joint with a joint yoke comprised of two joint yoke parts 4a, 4b. Each joint yoke part comprises: means 14 with bores (see Fig. 1b) for coupling to complementary means on an attachment element; a first set of teeth 11.31, 11.32 (see Fig. 3); a second set of teeth 25a, 25b; bearing parts with bores 26 for receiving cross journals; and connection elements 23 (see col. 8, line 41).

Lindenthal does not expressly disclose the open bores 26 or the open bores in the means 14 as blind bores. At page 4, lines 49+, Wintercorn teaches making a blind bore (i.e. closed) in order to prevent the entrance of dust. It would have been obvious to one of ordinary skill in the

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art at the time of the invention to modify the universal joint of Lindenthal by making the bores as blind bores in order to prevent the entrance of dust as taught by Wintercorn.

Lindenthal does not expressly disclose the journals of the universal joint's cross being offset. In Fig. 4, Miller shows a universal joint cross C with offset journals c, c'. Miller teaches making the universal joint with such a cross in order to provide a joint with greater strength and enlarged wearing surfaces. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the universal joint of Lindenthal by making the journals of its cross offset in order to provide the universal joint with greater strength and enlarged wearing surfaces as taught by Miller.

Claims 3, 13, 15 & 19. Lindenthal does not show the first and second teeth on different planes. However, applicant has not disclosed that having the first and second teeth on different planes solves any stated problem or is for any particular purpose. Moreover, it appears that the universal joint would perform equally well with the teeth on the same plane. Accordingly, the use of teeth on different planes is deemed to be a design consideration which fails to patentably distinguish over the prior art to Lindenthal.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cook shows that when an open bore (see Figs. 1 & 4) is made into a blind bore it is provided with threads (see Figs. 2 & 5-7).

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Greg Binda/
Primary Examiner
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